

A third little syncline occurs at the Inett and Caughley. Similar phenomena are exhibited in the Forest of Wyre Coalfield, where a series of unproductive measures come in between the Lower and Upper Coal-measures. The axis of the folds runs east-north-eastward, and their amplitude and length diminish in proceeding from north-west to south-east. Inter-Carboniferous folds also occur in the North Wales and North Staffordshire fields.

3. "Bajocian and Contiguous Deposits in the Northern Cotteswolds: the Main Hill Mass." By S. S. Buckman, Esq., F.G.S.

After giving comparative sections at Cleeve, Leckhampton Hill, and Birdlip, to show the disappearance of three horizons at the second locality and five more at the third, the author interprets the absence of the beds as due to 'pene-contemporaneous erosion,' brought about by the elevation of rocks, due to small earth-movements along a main south-west to north-east axis and subsidiary axes north-west to south-east. In the Northern Cotteswolds the beds which come in at Cleeve disappear, while there is a development of the Harford Sands, the Tilestone, and the Snowhill Clay above the Lower *Trigonia*-Grit. A series of detailed sections along the main hill-mass is given. On tracing the rocks from west to east across the Northern Cotteswolds, the whole of the Inferior Oolite disappears, except quite the upper portion, which rests directly on Upper Lias, and the Upper Lias itself undergoes denudation; eastward the latter thickens again, and basal beds of Inferior Oolite reappear. Thus the axis of an important anticline is along the Vale of Moreton. The general result of the observations does not confirm Professor Hull's view that these members of the Jurassic are thinning and disappearing eastward. The observed phenomena were really brought about by contemporaneous erosions; whereof the principal one occurred before the deposition of the Upper *Trigonia*-Grit. A revised map of Bajocian denudation is given, and it is shown that, owing to anticlinal axes along the Vales of Bourton and Moreton, pene-contemporaneous erosion must have had considerable influence in determining the position of these valleys. Such erosion is likely to have taken place along similar lines at different times, and therefore may be connected with folds in Palæozoic rocks and may have a bearing on the thickness of rocks overlying the Coal-measures. A table of the dates of the chief erosions in Jurassic times is appended to the paper.

OBITUARY.

CHARLES JOHN ADRIAN MEYER.

BORN MAY 23, 1832.

DIED JULY 16, 1900.

By the death of Mr. Charles Meyer we have lost a geologist who has contributed largely to our knowledge of Cretaceous rocks and fossils. He belonged to a family in whom a love of natural history was inherent, and from the time of his leaving school until his appointment to the Civil Service he greatly assisted in the preparation of a new edition of H. L. Meyer's "Illustrations of British

Birds." Always a careful and patient observer, he acquired a close acquaintance with the habits and song-notes of British birds, and never ceased to take an interest in them.

In July, 1857, he was appointed to a post in the Accountant-General's Office of that time, in a division which was subsequently transferred to the Chancery Courts under the title of the Supreme Court Pay Office. At that time his family lived near Godalming, and his attention was attracted to the fossils to be found in an old quarry in the Lower Greensand near the house. These interested him so much that he began to study them and the rocks containing them, and this laid the foundation of that interest in geology which bore good fruit in after years. From that time he always devoted his short holidays to visiting places of geological interest, chiefly along the south coast, and almost always where rocks of Cretaceous age were to be seen.

He had a remarkably keen eye for fossils, and knew the value of recording the exact bed from which they came; hence his notebooks contain carefully measured sections, and his published papers show that he had always the correlation of beds in different places before his mind.

He gradually gathered together a fine collection of Cretaceous fossils, comprising many thousand specimens, obtained entirely by his own hands. It comprises fossils from the Lower Greensand, Gault, 'Upper Greensand,' and Blackdown Beds, from the Devonshire Cenomanian, and from the several stages of the Chalk, and it contains many unique specimens. This collection, by the generosity of his sister, Miss C. Mejer, has been presented to the University of Cambridge, together with a smaller but fine collection of London Clay fossils collected by his brother, Mr. Christian H. Mejer, C.E., during the dockyard extension works at Portsmouth.

The first paper published by Mr. C. J. A. Mejer was a note on the age of the Blackdown Beds in 1863, and from that time to 1878 he contributed frequently to the pages of the *GEOLOGICAL MAGAZINE* and of the *Quarterly Journal of the Geological Society*. A list of his papers is given below, but two of the most notable may be specially mentioned.

In his paper "On the Relations of the Wealden and Punfield Formation" he took a view which was opposed to that held by another well-known geologist, and maintained it with such success that it is now generally accepted as correct.

His paper on the Cretaceous Rocks of Beer Head is really a very condensed account of his exploration of the Devon cliffs from Sidmouth to Lyme Regis. He visited this coast again and again, collecting carefully from every bed in the succession; and as he was practically the first to explore this fine collecting ground, he obtained a large number of excellent specimens, especially from those beds which he numbered 10, 11, and 12, and which lie at the base of the Chalk. He continued to collect from these cliffs for many years after the publication of his paper, and the value of his researches was acknowledged by Messrs. Jukes-Browne and W. Hill

in their paper on the "Delimitation of the Cenomanian" (1896), when he communicated to them a list of the many additional fossils he had obtained from these beds, with notes on some of the species.

Specimens from his collection have been figured by Messrs. Davidson, Lycett, and Woods in the volumes of the Palæontographical Society, and no doubt others will appear in the monograph Mr. Woods has undertaken.

Mr. Mejer was distinguished for his quiet and courteous manner, his habit of patient enquiry and of accurate observation, and by his willingness to impart any information that he possessed. When we remember that his life was really spent in the routine of office work, and that all his scientific work was done in his evenings and in his short holidays, we may well wonder that he did so much, and regret that he was not able to give more time to a pursuit for which he was so well qualified.

We are indebted to Miss C. Mejer for some of the information in the above notice.

LIST OF PAPERS.

MEYER, C. J. A.

- Age of the Blackdown Greensand. (*Geologist*, vol. vi, 1863, pp. 50–56.)
 Three Days at Farringdon. Position of Sponge-gravel. (*Geologist*, vol. vii, 1864, pp. 5–11.)
 A New Species of *Terebratella*, from the Bargate Stone (*T. trifida*). (*Geologist*, vol. vii, 1864, pp. 166–7.)
 Notes on Brachiopoda from the Pebble-bed of the Lower Greensand of Surrey; with descriptions of the new species, and remarks on the correlation of the Greensand Beds of Kent, Surrey, and Berks, and of the Farringdon Sponge-gravel, and the Tourtia of Belgium. (*GEOL. MAG.*, Vol. I, 1864, pp. 249–257.)
 On the Discovery of *Ophiura Wetherelli* at Herne Bay. (*GEOL. MAG.*, Vol. II, 1865, p. 572.)
 Notes on the Correlation of the Cretaceous Rocks of the South-East and West of England. (*GEOL. MAG.*, Vol. III, 1866, pp. 13–18, Pl. II.)
 Notes on Cretaceous Brachiopoda, and on the Development of the Loop and Septum in *Terebratella*. (*GEOL. MAG.*, Vol. V, 1868, pp. 268–272.)
 On the Lower Greensand of Godalming. (*Geol. Assoc.*—separate paper, 20 pp. Read before the Association 4th Dec., 1868.)
 Note on the Passage of the Red Chalk of Speeton into an underlying Clay-bed. (*GEOL. MAG.*, Vol. VI, 1869, pp. 13–14.)
 On Lower Tertiary Deposits recently exposed at Portsmouth. (*Quart. Journ. Geol. Soc.*, vol. xxvii, 1871, pp. 74–89; *Phil. Mag.*, vol. xli, 1871, p. 546.)
 On the Wealden as a Fluvio-lacustrine Formation, and on the Relation of the so-called 'Punfield Formation' to the Wealden and Neocomian. (*Quart. Journ. Geol. Soc.*, vol. xxviii, 1872, pp. 243–255.)
 Further Notes on the Punfield Section. (*Quart. Journ. Geol. Soc.*, vol. xxix, 1873, pp. 70–76.)
 On the Cretaceous Rocks of Beer Head and the adjacent Cliff-sections, and on the relative Horizons therein of the Warminster and Blackdown Fossiliferous Deposits. (*Quart. Journ. Geol. Soc.*, vol. xxx, 1874, pp. 369–393.)
 Micrasters in the English Chalk.—Two or more species? (*GEOL. MAG.*, Dec. II, Vol. V, 1878, pp. 115–117.)
 Notes respecting Chloritic Marl and Upper Greensand. (*GEOL. MAG.*, Dec. II, Vol. V, 1878, pp. 547–551.)
 An Excursion to Guildford. (Report in *Proc. Geol. Assoc.*, vol. v, 1878, pp. 161, 163.)
 MEYER, C. J. A., & JUKES-BROWNE, A. J.
 Chloritic Marl and Warminster Greensand. (*GEOL. MAG.*, Dec. IV, Vol. I, 1894, pp. 494–495.)